

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 6

REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Favorable reconsideration and allowance of the application are respectfully requested.

Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims are respectfully requested.

Status of Claims

Claims 5-8, 11-13, 15, and 18-24 are pending in the application.

Claims 5, 8, 11, and 21 have been amended. Applicants respectfully assert that the amendments to the claims add no new matter.

Claims 1 and 17 were previously canceled. Claims 2-4, 9-10, 14, 16, and 25 are currently being canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

Drawings Objections

The drawings have been objected to under 37 CFR 1.83(a) as not showing every feature of the invention specified on the claims. Specifically, the Examiner contended that the Drawings do not show the method of determining the desired location of the top electrode based on an opening time period of the switch.

Without conceding the appropriateness of this objection, Applicants respectfully assert that, in view of the cancellation of claims 9, 10, 16 and 25, and the amendments to claims 11 and 21, the currently pending claims do not recite limitations that may cause the drawings to be objectionable under 37 CFR 1.83(a) and, therefore, the objection to the Drawings is now moot.

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 7

CLAIM REJECTIONS

35 U.S.C. § 112 Rejections

In the Office Action, the Examiner rejected claims 10, 16 and 25 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Without conceding the appropriateness of this objection, Applicants respectfully assert that, in view of the cancellation of claims 10, 16 and 25, the rejection of these claims is now moot.

35 U.S.C. § 102 Rejections

In the Office Action, the Examiner rejected claims 2, 6-9, 11 and 12 under 35 U.S.C. § 102(e), as being anticipated by DeReus (US Patent 6,876,482). In addition, the Examiner rejected claims 3-5, 8, 9, 11, 13 and 14 under 35 U.S.C. § 102(e), as being anticipated by Dickens et al. (US Patent 6,657,525).

As is well established, in order to successfully assert a prima facie case of anticipation, the Examiner must provide a single prior art document that teaches every element and limitation of the claim or claims being rejected.

Each of amended independent claims 8, and 11 recites, in paraphrase, a top electrode structure including a generally rigid top actuation electrode; and one or more stoppers positioned on said top actuation electrode and able to maintain a predetermined gap between said top electrode and said bottom electrode when said switch is in a collapsed state; a support beam to support said top electrode; a non-rigid contact beam associated with said top electrode; and a first electrical contact positioned on said contact beam and able to be electrically connected with a second electrical contact when said switch is in a closed state, wherein said contact beam is deflected when said switch is in said closed state, and wherein a spring constant of said contact beam is bigger than a spring constant of said support beam

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 8

(emphasis added). It is respectfully asserted that DeReus or Dickens et al. do not teach or fairly suggest at least these features of the claimed invention.

Thus, it is respectfully requested that the rejections of independent claims 8 and 11 under 35 U.S.C. 102§(e) be withdrawn.

Furthermore, it is respectfully submitted that independent claims 8 and 11 are patentable, and thus allowable, over the prior art references on record and any combination thereof. In this regard, it is noted that the distinguishing features of independent claims 8 and 11, as discussed above, would not have been obvious at the time the invention was made to a person skilled in the art, in view of DeReus and/or Dickens et al., alone or in combination.

Claims 5-7 depend directly from independent claim 8 and incorporate all the elements of this claim. Claims 12 and 13 depend directly from independent claim 11 and incorporate all the elements of this claim. Therefore, it is respectfully submitted that claims 5-7, 12, and 13 are patentable, and thus allowable, at least for the reasons set forth above.

Applicants respectfully submit that in view of the cancellation of claims 2-4 and 14, the rejection of these claims under 35 U.S.C. §102(e) is now moot.

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 15 and 18-20 under 35 U.S.C. § 103(a), as being unpatentable over Dickens et al. (US Patent 6,657,525).

Claim 15 depends directly from independent claim 11 and incorporates all the elements of this claim. Therefore, it is respectfully submitted that claim 15 is patentable, and thus allowable, at least for the reasons set forth above.

Regarding claim 20, the Examiner contended that although Dickens et al. fails to teach the claimed actuation voltage and contact force between the first and second contacts, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the contact force between the first and second electrical contacts in order to increase

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 9

the speed of the switch and the contact force by means of using a large actuation voltage. Applicants respectfully traverse this rejection in view of the remarks that follow.

Applicant respectfully asserts that the present application claims and describes switch configurations (Figs. 2A-3E, and/or 5A-8B) that are able to maintain a relatively high contact force, e.g., a contact force of at least 100 micro-Newtons, as required by claim 20, in response to a relatively low actuation voltage, e.g., an actuation voltage of less than 40 Volts, as required by claim 20. Applicants respectfully submit that it may be desired to operate the switch at relatively low voltages, low power consumption and/or large contact forces, which may result in an extended lifetime of the switch (paragraph [0025] of the present application). Applicants further submit that in contrast to the switches described in the present application, conventional switch designs are not able to achieve the desired relationship between the contact force and the actuation voltage, as recited in claim 20 (paragraph [0003] of the present application). Applicants respectfully submit that it would not have been obvious to one of ordinary skill in the art at the time the invention was made to implement the contact force and actuation voltage as recited by claim 20.

Furthermore, as mentioned above the Examiner contended that Dickens et al. describes adjusting the contact force between the first and second electrical contacts in order to increase the speed of the switch and the contact force by means of using a large actuation voltage. Therefore, according to the Examiner's contention, Dickens et al. teaches away from obtaining a relatively high contact force without using high activation voltages, as enabled by the present invention as claimed in claim 20.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejection of claim 20 under 35 USC §103(a).

Claims 18 and 19 depend directly from independent claim 20 and incorporate all the elements of this claim. Therefore, it is respectfully submitted that claims 18 and 19 are patentable, and thus allowable, at least for the reasons set forth above.

The Examiner rejected claims 21, 23 and 24 under 35 U.S.C. § 103(a), as being unpatentable over Wheeler et al. (US 2003/0025580) in view of Dickens et al. In addition, the Examiner rejected claims 21, 22 and 24 under 35 U.S.C. § 103(a), as being unpatentable over

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 10

Wheeler et al. in view of DeReus. Specifically, the Examiner contended that Wheeler et al. discloses a switch able to connect an antenna with a receiver.

Amended independent claim 21 recites, in paraphrase, a top electrode structure including a generally rigid top actuation electrode; and one or more stoppers positioned on said top actuation electrode and able to maintain a predetermined gap between said top electrode and said bottom electrode when said switch is in a collapsed state; a support beam to support said top electrode; a non-rigid contact beam associated with said top electrode; and a first electrical contact positioned on said contact beam and able to be electrically connected with a second electrical contact when said switch is in a closed state, wherein said contact beam is deflected when said switch is in said closed state, and wherein a spring constant of said contact beam is bigger than a spring constant of said support beam (emphasis added). As discussed above, it is respectfully asserted that DeReus and/or Dickens et al., alone or in combination, do not teach or fairly suggest at least these features of the claimed invention. This deficiency of DeReus and/or Dickens et al. can not be cured by Wheeler et al.

Thus, it is respectfully requested that the rejections of independent claim 21 under 35 U.S.C. §103 (a) be withdrawn.

Claims 22-24 depend directly from independent claim 21 and incorporate all the elements of this claim. Therefore, it is respectfully submitted that claims 22-24 are patentable, and thus allowable, at least for the reasons set forth above.

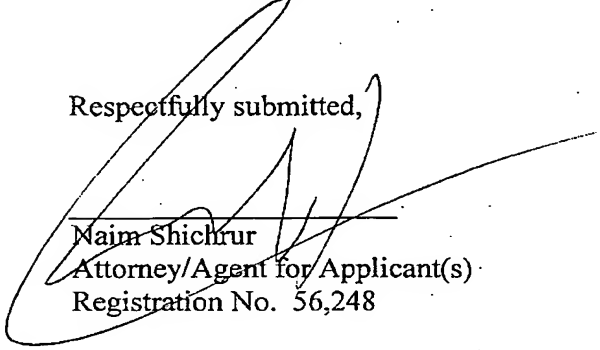
In view of the foregoing amendments and remarks, the pending claims are deemed to be allowable. Their favorable reconsideration and allowance are respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

APPLICANT(S): CHOU, Tsung-Kuan Allen et al.
SERIAL NO.: 10/812,900
FILED: March 31, 2004
Page 11

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,



Naim Shichrur
Attorney/Agent for Applicant(s)
Registration No. 56,248

Dated: July 19, 2006

Pearl Cohen Zedek Latzer, LLP
1500 Broadway, 12th Floor
New York, New York 10036
Tel: (646) 878-0800
Fax: (646) 878-0801